

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

Appln No.:	10/767,407	)	
Applicants:	Doaga et al.	)	Confirmation No. 2870
Filed:	January 29, 2004	)	
For:	GOLF COURSE COMMUNICATION SYSTEM AND METHOD	)	This Appeal Brief was electronically filed on August 14, 2007 using the USPTO's EFS-Web.
TC/A.U.:	3712	)	
Examiner:	Robert E. Mosser	)	
		)	
		)	
Docket No.:	6234/79714	)	
Customer No.:	22242	)	

**APPEAL BRIEF**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

Pursuant to 37 C.F.R. §41.37, the applicants hereby respectfully submit the following  
Brief in support of their appeal.

**(1) Real Party in Interest**

The real party in interest is GPS Industries Inc., a Canadian corporation having a  
primary place of business in British Columbia, Canada.

**(2) Related Appeals and Interferences**

There are no related appeals or interferences known to appellant, the appellant's legal  
representative, or assignee that will directly affect, or be directly affected by or have a  
bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

Claims 1-22 are pending and presently stand at least twice and finally rejected and  
constitute the subject matter of this appeal.

**(4) Status of Amendments**

No post-final amendments have been submitted.

**(5) Summary of Claimed Subject Matter**

A concise explanation of the subject matter of the independent claims appears as follows (with corresponding references to the specification by paragraph number where appropriate being shown to the right) and to the drawing(s) (if any) by figure number and reference characters.<sup>1</sup> Some drawings, where applicable, are presented below for the convenience of the reader.

***Independent Claims Subject Matter Map***

**Claim 1**

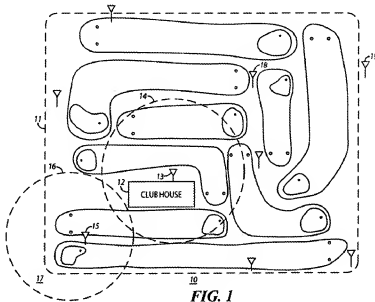
a local area network (21 – FIG. 2) that comprises a plurality of wireless access points (18 – FIG. 1) disposed about a golf course (10 – FIG. 1)	0012, 0013, 0014, 0016, 0022, 0026, 0027
a wireless communications protocol operably supported by the plurality of wireless access points,	0012, 0015, 0019, 0031
wherein the wireless communications protocol supports: - automatically updating golf course infrastructure information (25 – FIG. 2);	0003, 0012, 0024
subscriber communications (27 – FIG. 2)	0012, 0025, 0032

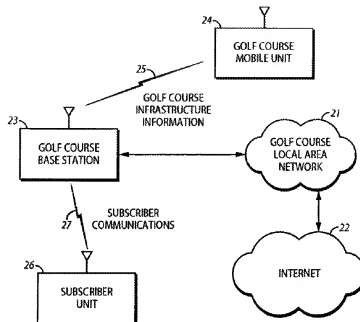
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<sup>1</sup> There are no means plus function (or step plus function) recitations in any of the claims involved in this appeal, and therefore there is no identification of any corresponding structure, material, or acts in the specification in this regard. It will be understood that in some instances the content of a given referenced paragraph may additionally contain content that is tangential or even irrelevant to the claimed subject matter. It will also be understood that this summarization of the claimed subject matter is, in fact, a “summary” and that the applicant does not represent or intend that this brief presentation, or the accompanying references to the drawings and the specification, comprises an exhaustive presentation in this regard. As always, the claims are to be viewed and interpreted in view of the context of the entire specification sans the Abstract.

Claim 15

providing wireless communication resources (18 – FIG. 1) for at least a substantial portion of the golf course (10 – FIG. 1)	0012, 0013, 0014, 0015, 0016, 0026, 0027
dedicating a first part (25 – FIG. 2), but not all, of the wireless communication resources to support golf course infrastructure communications	0003, 0010, 0017, 0018, 0019, 0020, 0023, 0024, 0031
using part (27 – FIG. 2) of the wireless communication resources to support subscriber communications	0010, 0011, 0017, 0018, 0019, 0020, 0025, 0032





**FIG. 2**

**(6) Grounds of Rejection to be Reviewed on Appeal**

Claims 1-4 and 7-9 are rejected under 35 U.S.C. §102(b) given Dudley (U.S. Patent No. 5,772,534) (“Dudley”). Claim 6 is rejected under 35 U.S.C. §103(a) given Dudley. Claims 5 and 10-22 are rejected under 35 U.S.C. §103(a) given Dudley in view of Sirén (U.S. Patent No. 6,763,236) (“Sirén”).

**(7) Argument**

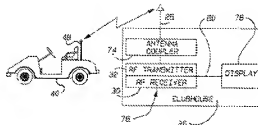
***Rejections under 35 U.S.C. 102(b)***

Claims 1-4 and 7-9 are rejected under 35 U.S.C. §102(b) given Dudley.

Dudley describes a satellite enhanced golf information system generally exemplified in his FIG. 1 (reproduced below for the convenience of the reader).



Dudley provides for a single antenna (28) to communicate between his infrastructure elements (represented here by a clubhouse (26) that contains an RF receiver (30) and an RF transmitter (32)) and corresponding transceivers mounted on golf carts (40) (the latter being more clearly shown in Dudley's FIG. 5, which is reproduced below). Dudley's entire golf course-based local area network is therefore seen to be comprised of a *single* access point (i.e., the antenna (28) and corresponding transceiver apparatus described above).



Dudley also suggests that his golf cart platforms can have a GPS receiver to thereby permit the receiver to determine its location on the golf course. As a general GPS receiver has a relatively large margin of error, however, Dudley then further discloses that his golf cart platforms can further comprise differential beacon receivers that are able to “calculate positional error produced by a global positioning satellite

receiver which has been induced by selective availability in order to obtain extremely accurate error correction which leads to accurate position and velocity data from the DGPS system.”<sup>2</sup>

Dudley’s basic GPS signals are received by the golf cart platform from a high altitude GPS satellite (34). The differential GPS content is then provided to the golf cart platform, in turn, by “a radio frequency transmitting antenna 36, preferably a land-sea radio navigation antenna as run by the Coast Guard branch of the United States Government.”<sup>3</sup> This additional transmitting antenna (36) is therefore clearly disclosed as being external to Dudley’s above-described golf course local area network and does not comprise any part thereof.

Dudley is therefore seen to disclose two transmitting antennas – a first of these antennas (28) is clearly an access point for his local area network while the second of these antennas (36) is just as clearly not a part of his local area network. Accordingly, it is clear that Dudley discloses only a single access point for his local area network.

Dudley also teaches that this sole access point can serve to facilitate the “exchange of information between a golf cart and a home station, such as a clubhouse.”<sup>4</sup> Dudley discloses that such information can comprise location information, a status signal regarding a golfing party’s rate of play, play-related warnings (regarding, for example, playing too close to a particular green or playing too close to a limited access area), hazardous weather conditions that warrant “the special attention of a golf cart driver,”<sup>5</sup> and emergency signals (to indicate, for example, a golfer’s “emergency or medical emergency condition”<sup>6</sup>).

Dudley is therefore seen to teach the transmission of various kinds of golf course infrastructure information. It is also noted, however, that in every instance Dudley’s transmissions are the result of human intervention. That is, someone pushes

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<sup>2</sup> *Dudley* at column 5, lines 13-18.

<sup>3</sup> *Dudley* at column 5, lines 9-12.

<sup>4</sup> *Dudley* at column 3, lines 13-14.

<sup>5</sup> *Id* at column 4, lines 10-11.

<sup>6</sup> *Id* at column 4, lines 18-19.

a button or the like at either the clubhouse or the golf cart to instigate the transmission.<sup>7</sup> Accordingly, Dudley makes no teaching or suggestion that any such transmission of golf course infrastructure information be automated in any manner.

Dudley is also seen to teach *only* the transmission and exchange of golf course infrastructure information. More to the point, all of Dudley's disclosed transmissions relate, one way or the other, to matters pertaining to the golf course itself. Dudley makes no suggestion that his wireless local area network might serve to also support communications regarding something other than golf course infrastructure matters.

*Claim 1*

The applicant's recitations of claim 1, however, differ from Dudley in at least three different ways:

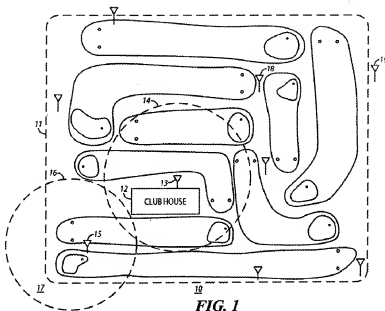
- 1) The golf course local area network is comprised of a *plurality* of access points as versus Dudley's use of only a *single* such access point;
- 2) The golf course local area network supports *automatically* updating golf course infrastructure information; and
- 3) The local area network will support, in *addition* to automatically updated golf course infrastructure information, *subscriber* communications as well.

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<sup>7</sup> See, for example, *Dudley* at column 8, line 55 - column 9, line 11 as well as column 10, lines 18-23.

*Multiple access points*

As shown in applicant's FIG. 1, reproduced below, the disclosed local area network is comprised of a plurality of wireless access points.



Dudley, however, explicitly limits his golf course local area network to only a single such wireless access point. While it is true that Dudley also discloses a second antenna (36), it is also true that Dudley clearly and explicitly describes this second antenna as *not* comprising a part of his golf course local area network; this second antenna instead comprises a part of an independent network that is completely unrelated to Dudley's golf course network.

Claim 1 clearly captures this point. In particular, claim 1 provides for "a local area network that comprises a plurality of wireless access points disposed about a golf course." While Dudley might, for the sake of argument, be interpreted broadly to disclose providing a plurality of wireless access points, it is starkly clear that Dudley's two disclosed antennas are *not* part of a *same* local area network, hence Dudley fails to meet this limitation of claim 1, taken in its entirety.



Perhaps in recognition of the weakness of arguing that the DGPS receiver comprises a second access point for Dudley’s network, the Examiner has advanced an alternative proposition; that each of the golf carts in Dudley’s system can also be viewed as comprising a “wireless access point” and hence these golf carts meet the claim’s requirement for a plurality of wireless access points. Such an interpretation, however, would completely strip the expression “wireless access point” of its ordinary meaning.

It is well understood in the field of computer networking that a wireless access point comprises a device that connects other network devices together. This is exactly how the applicant employs the expression in the specification. Consider, for example, FIG. 3, shown below, which clearly depicts a wireless access point (23) that serves to couple a golf course mobile unit (24) (akin, for example, to Dudley's golf cart) to other elements via the golf course local area network (21).

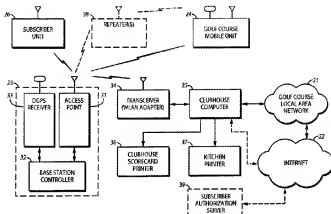


FIG. 3

Quite simply, the Examiner's suggestion that golf cart transceivers, which serve in both the applicant's setting and in Dudley as *endpoints* that operate *through* a wireless access point, are somehow also *themselves* "wireless access points" completely ignores the ordinary meaning that defines and burdens this expression. There is no basis in the applicant's specification, in Dudley, nor in the ordinary meaning of the expression "wireless access point" to justify making the casual and utterly contrary interpretation being suggested by the Examiner.

*Automatic updates*

As noted above, Dudley describes only the transmission of information in response to a person actively initiating that transmission. The Examiner seeks to argue that such actions are, in fact, examples of an automatic transmission. The Examiner argues in particular as follows:

Finally the claim additionally recites that the broadcasting is accomplished through automatic means, as the device of Dudley transmits the updated course information responsive to the activation of a reset button by an operator located remotely at a club house and does not further require manual interaction with the respective device by said operator it is understood to constitute an automated process.<sup>8</sup>

The Examiner's position runs contrary to common sense and essentially strips the word "automatic" of much of its meaning. This interpretation also ignores the applicant's specification. Paragraph 0024, for example, provides in part as follows:

It will be well understood that such golf course infrastructure information 25 can comprise user-initiated transmission and/or automated transmissions. To illustrate, and as to the latter, [various details regarding specific automated transmissions are set forth].

Accordingly, it is clear that the specification draws a line and a distinction between an "automated transmission" on the one hand and a "user-initiated transmission" on the other hand; they are two separate things. This distinction as set forth in the specification, of course, carries over and informs interpretation of the words of the claims. This being the case, the limitation in claim 1 directed to "automatically updating golf course infrastructure information" *must* be read as excluding "user-initiated transmissions."

As admitted by the Examiner, however, Dudley's transmissions are operator initiated. An "operator" is clearly a "user," and therefore Dudley's transmissions are user-initiated transmissions which are *not* "automated transmissions" as specified by the claim.

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<sup>8</sup> Office communication mailed May 15, 2007 at page 4.

*Subscriber communications*

Dudley discloses using his system *only* for the purpose of making golf course infrastructure-based communications. Dudley makes this clear via a considerable number of specific communications contemplated for use within his system. The Examiner argues that Dudley also support “subscriber communications,” and cites column 9, lines 6 through 11 as support for this view. That portion of Dudley, however, reads as follows:

For example, upon transmission of a message to speed up play, a golfer can acknowledge receipt by depressing the transmit button 118.

With all due respect, however, this kind of a transmission relates again to golf course infrastructure information. In fact, this kind of information squares exactly with the applicant’s own characterization of the expression “golf course infrastructure information” which reads, in part, “Such information can comprise any information that relates to real time and/or planned or anticipated data or instructions as pertain to the status, operations, or maintenance of the golf course.”<sup>9</sup>

In contrast, the applicant explains in the specification that subscriber communications “can have little or nothing to do with the operation of the golf course itself. Instead, these communications can instead pertain completely to the interests and needs of the subscribers themselves.”<sup>10</sup> As clear as it is that Dudley does support golf course infrastructure information in his system, it is even more clear that Dudley makes *no* suggestion or teaching that any *non*-golf course infrastructure information, such as subscriber communications, are also to be supported by such a system.

Accordingly, there is nothing in Dudley to properly anticipate claim 1’s requirement that the wireless communications protocol support “subscriber communications” in addition to automatic updates of golf course infrastructure information.

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<sup>9</sup> Specification at paragraph 0023.

<sup>10</sup> Specification at paragraph 0025.

For any of these three differing basis of distinction it is clearly evident that Dudley fails to anticipate the limitations of claim 1 which require provision of a local area network having a plurality of wireless access points, a wireless communications protocol that supports automatically updating golf course infrastructure information, and a wireless communications protocol that also supports subscriber communications. The applicant therefore respectfully submits that Dudley does not anticipate claim 1.

Remaining claims 2-4 and 7-9 are ultimately dependent upon claim 1 and are allowable on that basis. While the applicant believes that other arguments are available to highlight the allowable subject matter presented in various of the dependent claims, the applicant also believes that the comments set forth herein regarding allowability of claim 1 are sufficiently compelling to warrant present exclusion of such additional points for the sake of brevity and expedited consideration.

***Rejections under 35 U.S.C. 103(a)***

Claim 6 is rejected under 35 U.S.C. §103(a) given Dudley and Claims 5 and 10-22 are rejected under 35 U.S.C. §103(a) given Dudley in view of Sirén.

***Claim 15***

Sirén discloses an approach to allocating communication resources and providing services over a wireless network. There is nothing in Sirén that suggests dedicating *only a part of* a set of wireless communication resources to supporting golf course infrastructure communications while also using part of those wireless communication resources to support subscriber communications.

The Examiner argues that “Dudley further teaches dedicating a portion of the wireless network to support golf course infrastructure information including updating the club house on the position of the golf carts throughout the course (*Siren Abstract*) and pin placement while the communication system Siren teaches the use of subscriber-subscriber communication as normal voice calls in addition to the data-

network features (*Siren* Col 5:5-9).<sup>11</sup> Respectfully, this comprises a misconstruing and a misrepresentation of Dudley; Dudley teaches dedicating *allof* his wireless network to the support of golf course infrastructure information. This being the case, Dudley leaves nothing available for subscriber communications.

Sirén, on the other hand, dedicates *all* of his resources to subscriber communications, leaving nothing that might be used in a *dedicated* manner to support golf course infrastructure communications.

This being the case, both prior art references are seen to be squarely in the same camp – *all* available wireless communication resources are used for a particular core purpose with nothing being held in reserve for another payload purpose. Accordingly, no combination of Dudley and Sirén, regardless of how obvious or nonobvious that combination might be, will yield the limitations of independent claim 15. In particular, claim 15 requires dedicating a first part, *but not all*, of the wireless communication resources to support golf course infrastructure communications, and then using *part* of those resources to also support subscriber communications.<sup>12</sup>

This being so, independent claim 15 cannot be viewed as comprising only an obvious combination of Dudley with Sirén.

Remaining claims 5, 6, 10-14, and 16-22 are ultimately dependent upon one of the two independent claims shown above to be allowable. Again, while the applicant believes that other arguments are available to highlight the allowable subject matter presented in various of these dependent claims, the applicant again believes that the comments set forth herein regarding allowability of these independent claims are sufficiently compelling to warrant present exclusion of such additional points for the sake of brevity and expedited consideration.

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<sup>11</sup> Office communication dated May 15, 2007 at page 6.

<sup>12</sup> "Subscriber communications," of course, having been shown above to include non-golf course infrastructure information."

**(8) Claims Appendix**

1. A communications system comprising:
  - a local area network that comprises a plurality of wireless access points disposed about a golf course;
  - a wireless communications protocol operably supported by the plurality of wireless access points, wherein the wireless communications protocol supports:
    - automatically updating golf course infrastructure information; and
    - subscriber communications.
2. The communications system of claim 1 wherein substantially all of the plurality of wireless access points are disposed within an outer periphery of the golf course.
3. The communications system of claim 1 wherein the plurality of wireless access points are arranged and configured to provide wireless communication coverage to at least a substantial majority of the golf course.
4. The communications system of claim 3 wherein the plurality of wireless access points are further arranged and configured to provide wireless communication coverage to at least one zone that is external to the golf course.
5. The communications system of claim 4 wherein the at least one zone comprises a residential area.
6. The communications system of claim 1 wherein the golf course comprises at least a nine hole golf course.

7. The communications system of claim 1 wherein the golf course infrastructure information comprises at least one of:

- pin placement information;
- edible consumables ordering information;
- merchandise ordering information;
- score information;
- scorecard printing information.

8. The communications system of claim 7 wherein the pin placement information comprises substantially current pin placement information.

9. The communications system of claim 1 wherein automatically updating golf course infrastructure information comprises:

- automatically broadcasting pin placement information pursuant to a first broadcasting schedule when providing new pin placement information;
- automatically broadcasting pin placement information pursuant to a second broadcasting schedule when providing old pin placement information.

10. The communications system of claim 1 wherein the subscriber communications comprise packet data subscriber communications.

11. The communications system of claim 10 and further comprising a subscriber authorization server that is operably coupled to the local area network.

12. The communications system of claim 11 wherein the subscriber authorization server comprises authorization means for determining that a given subscriber is authorized to use the local area network and for permitting the given subscriber to conduct a wireless communication via the local area network.

13. The communications system of claim 1 wherein the subscriber communications comprise access to a data network.

14. The communications system of claim 13 wherein the data network comprises the Internet.

15. A method of facilitating various wireless communications proximal to a golf course, comprising:

- providing wireless communication resources for at least a substantial portion of the golf course;
- dedicating a first part, but not all, of the wireless communication resources to support golf course infrastructure communications;
- using part of the wireless communication resources to support subscriber communications.

16. The method of claim 15 wherein providing wireless communication resources for at least a substantial portion of the golf course further comprises providing wireless communication resources for at least a substantial portion of the golf course and at least a first zone that is external to the golf course.

17. The method of claim 16 wherein providing wireless communication resources for at least a substantial portion of the golf course and at least a first zone that is external to the golf course further comprises providing wireless communication resources for at least a substantial portion of the golf course and at least a first zone that is external to the golf course and that comprises a residential area.

18. The method of claim 15 wherein providing wireless communication resources further comprises providing a plurality of wireless access points.



19. The method of claim 18 wherein providing a plurality of wireless access points further comprises providing a plurality of wireless packet data access points.

20. The method of claim 15 wherein dedicating a first part, but not all, of the wireless communication resources to support golf course infrastructure communications further comprises dedicating a first part, but not all, of the wireless communication resources to support golf course infrastructure communications regarding current pin placement information.

21. The method of claim 20 wherein using part of the wireless communication resources to support subscriber communications further comprises using part of the wireless communication resources to support subscriber communications for previously authorized subscribers.

22. The method of claim 21 and further comprising assessing a usage fee to the authorized subscribers.

Application No. 10/767,407  
Notice of Appeal dated August 14, 2007  
Decision of Primary Examiner dated May 15, 2007

**(9) Evidence Appendix**

None.

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**(10) Related Proceeding Appendix**

None.

Respectfully submitted,

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